

TECHNOLOGY**Vending machine automates refills via swipe of card**

Patients will soon be able to bypass long lines at the pharmacy counter by grabbing their refill prescriptions from a secure vending machine, according to the San Diego company that developed the automation technology.

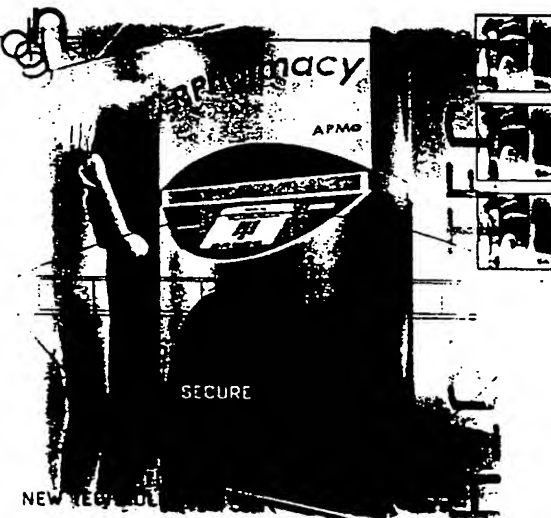
The Automated Product Machine (APM™) allows patients to identify themselves, pay for their medications with cash or a credit card, request counseling, and pick up their refills previously deposited in the vending machine by pharmacy staffers. Distributed Delivery Networks Corp. (ddn) recently unveiled the vending machine at the National Association of Chain Drug Stores Marketplace Conference in San Diego.

"The APM™ is a friendly kiosk, like an ATM or boarding pass machine at the airport," said William Holmes, ddn president. "People are very accustomed to using these types of machines and waiting in line is very frustrating. Retail drugstore chains are getting competition from the Web, mail order, big box chains, and grocery stores, so the largest driving force for our technology will be customer service. And there's also a very large pharmacist shortage. We're trying to help retail chains retain their customers through a better shopping experience and environment."

To use the APM, the customer swipes a credit card and punches in a four-digit PIN or enters the refill Rx number and his or her date of birth. Once the patient's identity has been confirmed, the screen shows all the prescriptions ready for pickup. The patient selects one or all of the Rx's, swipes a credit card or inserts cash to pay for the refill, picks up a receipt, and signs an electronic signature

nature capture device. A small door opens on the APM, and the patient retrieves the bagged prescription.

"We also make sure the patients get the information and counseling they need," said Holmes. "They are asked whether they want a consultation. If they touch the button, the pharmacist is informed that they need service. And each package has a unique bar code that is read when it's put into the machine and again



prior to vending. The door won't open if the bar codes don't match."

Mindful that retail floor space is at a premium, the ddn designers kept the APM footprint to a minimum. Even though it occupies a space of only 2 ft. by 4 ft., the machine can store more than 1,000 small prescription packages or about 500 parcels in a more typical mix of sizes. The machine can be freestanding or built into the pharmacy wall, allowing access to the front of the unit by customers and to the rear by pharmacy personnel refilling the unit.

An APM is priced between \$45,000 and \$65,000, depending on

the bells and whistles the buyer wants. The units can be leased or purchased outright. "The return on investment is less than a year," added Holmes, who previously worked for the pharmacy automation firms Pyxis and Omnicell.

The first APMs will be installed in the pharmacy area under the direct supervision of the R.Ph. The company believes that, depending on regulatory reaction to the technology, vending machines could be placed in other locations or remain accessible when no pharmacist is physically present.

"Telepharmacy already exists," Holmes said. "We believe that there will be pressure to have it available after hours to provide the same quality and functionality as telepharmacy. I was on the phone recently with the pharmacy director of a small combo chain who thinks APM could be the answer to his prayers. A very ill patient had arrived after one of his pharmacies had closed. Because there was no pharmacist, the manager couldn't get the medication or retrieve the prescription. Our machine offers a way to serve that customer."

Moving the vending machines away from direct supervision by an on-site pharmacist will require regulatory approval from state boards of pharmacy. But instead of going to the boards itself, ddn is looking to partner with a drugstore chain that will drive the regulatory approval process. "We're very early in partnering with people in deploying the technology, so there are certain concerns about what we might do to satisfy the regulators," Holmes said. "The only way the technology will ever become widely accepted and deployed is if we can demonstrate absolute accuracy."

For more information, go to www.ddncorp.com, telephone (760) 471-3994, or e-mail wholmes@ddncorp.com.

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Pharmacy robot

Automated kiosk dispenses refills

- Victoria Colliver, Chronicle Staff Writer
Saturday, July 16, 2005



Consumers have long been getting everything from cash to airline tickets from automated machines. Now add prescription drugs to the list.

Longs Drug Store Corp. will be the first Northern California retailer to install an ATM-style kiosk that dispenses drugs. Safeway Inc. has also received state approval for drug kiosks. Requests from Walgreens and White Cross Pharmacy in San Diego are pending.

These machines, which had their California premiere in San Diego late last year, spit out prepackaged refills. They are being touted as an alternative to waiting while a pharmacist fills a prescription.

Pharmacies and manufacturers of the devices believe that growing acceptance of electronic vending systems for other items will help people feel comfortable getting drugs from a machine.

Longs, which has been testing a kiosk in a San Diego store, plans to introduce the device in its pharmacy on South California Boulevard in Walnut Creek within the next week or two.

The company, which also is headquartered in Walnut Creek, is rolling out the technology cautiously. Longs believes the kiosks will let pharmacists spend more time with patients, but it wants to test the devices thoroughly.

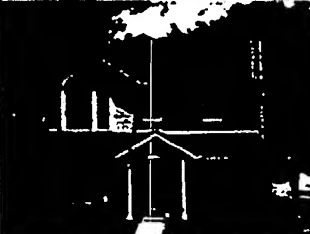
"We have an obligation to make sure the technology is secure and reliable," said spokeswoman Phyllis Proffer. "If the installation goes well and the tests go well, we will allow people to use it."

Some pharmacists are unhappy about the prospect of customers buying their drugs from a machine. They fear kiosks will reduce their contact with patients, further eroding relationships already hurt by such trends as mail-order distribution and online drug sales.

Pharmacists also see the devices as potential threats to their jobs, similar to robotic dispensers that have replaced human hands putting medication into containers.

A group of independent California pharmacists filed a lawsuit in April against the state Board of Pharmacy, accusing it of failing to assess the technology sufficiently before waiving rules that require a pharmacist be present while drugs are being dispensed.

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"What the chains want to do is reduce costs. We need more pharmacists and more counseling, versus more robots and machines," said Fred Mayer, head of the Pharmacy Defense Fund, a San Rafael legal foundation that filed the suit.

Mayer said the lack of pharmacist involvement could lead to adverse reactions to medications. And, he warned, customers -- especially seniors --

could be robbed of their drugs, depending on where pharmacies locate machines.

The machines conceivably could be used to replace human workers, of course. For its part, Longs has no plans to cut pharmacists or clerical staff. The company views the kiosks as a way to provide greater convenience, Proffer said.

The two manufacturers of the ATM-style kiosks -- Asteres Inc. of Del Mar and Distributed Delivery Networks Corp. of San Marcos, both in San Diego County -- say the pharmacists are misinterpreting the way retailers will use the machines.

The devices don't actually fill prescriptions. Instead, they hold prescriptions that have been filled by pharmacists until customers can pick them up.

Consumers typically must register to use kiosks. After logging on with a password and user name, the customer pays with a credit or debit card and receives the order.

"It's just another checkout lane. It's like a clerk with the inventory in it. If it's a refill prescription, such as birth control, and you just don't want to stand in line, that's what it's there for," said Linda Pinney, founder of Asteres, which makes the ScriptCenter, the device that Longs and Walgreens are using.

Distributed Delivery Chief Executive Officer William Holmes said the machines might actually improve interactions between pharmacists and patients, and reduce medication errors.

"By getting the people out of line that don't need or want a consultation, you'll increase the face time with the people who need that," he said.

The Asteres and DDN machines are similar and are being introduced at roughly the same time. Asteres filed a lawsuit last year against DDN and Holmes, accusing them of misappropriating trade secrets, an accusation DDN denies. A trial is set for September.

DDN's product, the Automated Pharmacy Machine, has been tested by White Cross Pharmacy in San Diego. Holmes said the company plans to roll out its devices with Kmart Corp. and Duane Reade in New York.

Holmes said DDN's units cost about \$55,000 each, and the company is planning to introduce a smaller-capacity version that would run about \$39,000. Asteres' Pinney said ScriptCenter, a 1,300-pound machine that can hold up to 500 prescriptions, costs about \$75,000.

The California Board of Pharmacy is scheduled to review requests for the machines by Walgreens and White Cross at its meeting next week.

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The board's executive director, Patricia Harris, said she has confidence in the regulations the board has set for the machines. They include limiting their use to refills and requiring them to be placed in close proximity to a pharmacy.

"The board would not have passed or approved the waiver if we felt it impacted patient safety," she said.

Researchers at UC San Diego are planning to study the machines' effect on consumers and pharmacies, Harris said. The medical center has applied for a waiver to install a kiosk in its outpatient pharmacy.

HOW DRUG KIOSKS WORK

Once customers have filled an initial prescription with the pharmacist, they can register to retrieve and pay for their refills at a machine inside the store, even when the pharmacy counter isn't open.

1. Consumers order their refills in the usual way, either by telephone or online.
2. A pharmacist then fills the prescription and places packaged medicines in the machine.
3. To pick up the order, consumers log on with a user name and password and swipe a credit or debit card.
4. The prewrapped package of medicine drops into the bin of the machine..

The Chronicle

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